# Morgan Lewis

**Jody C. Barillare**
+1.302.574.7294
jody.barillare@morganlewis.com

December 14, 2017

**VIA ECF**
The Honorable Richard G. Andrews
J. Caleb Boggs Federal Building
844 King Street, Room 6325
Wilmington, Delaware 19801-3555

Re:   *TQ Delta, LLC v. 2Wire, Inc.*, C.A. No. 13-cv-1835-RGA
      *TQ Delta, LLC v. ZyXEL Communications, Inc. et al.* (C.A. No. 13-2013-RGA) and
      *TQ Delta, LLC v. ADTRAN, Inc.* (C.A. No. 14-954-RGA; C.A. No. 15-121-RGA)

Dear Judge Andrews:

   We submit this joint letter on behalf of Plaintiff TQ Delta, LLC ("TQ Delta") and
Defendants 2Wire, Inc., ZyXEL Communications, Inc. and ADTRAN, Inc. (collectively,
"Defendants") pursuant to this Court's Order "request[ing] a joint letter from the parties as
to whether the 12-17-2009 amendment can or cannot be used to demonstrate that the
patentee amended the claims."  D.I. 419.

## TQ Delta's position:

   During the prosecution of the application that would issue as U.S. Patent No.
7,831,890, the Patent Office rejected the originally-filed claims, 1-45 (A140-145), on
December 1, 2009.  *See* A163.  On December 8, 2009, Applicant's attorney conducted a
telephonic interview with the Examiner. During the interview "[t]he examiner suggested
the features of [the invention] need more detailing such as type of memory, type of
interleaving to distinguish from the prior art or memory art." A164-167 (interview
summary).  Conspicuously absent from the interview summary is any reference to "the
content of the message" that Defendants argue was the point of novelty asserted by the
Applicant.  Following the interview, the Applicant filed a request for continuing
examination, cancelled all of the originally-filed claims and replaced them with new
claims.  *See* A647-650 (12-17-2009 Amendment).  The new claims that are set forth in the
12-17-2009 Amendment.

**Morgan, Lewis & Bockius LLP**

The Nemours Building
1007 North Orange Street
Suite 501
Wilmington, DE  19801        **T** +1.302.574.3000
United States               **F** +1.302.574.3001

The Honorable Richard G. Andrews
December 14, 2017
Page 2

To the extent the Court's request is directed to ascertaining whether any estoppel or disclaimer arises from the Applicant's replacement of the original claims, TQ Delta submits that surrender of claim scope does not attach when all pending claims are cancelled and new claims are added. *See Felix v. Am. Honda Motor Co.*, 562 F.3d 1167, 1182 n. 4 (Fed. Cir. 2009) ("We leave open the question of whether the presumption of surrender would have attached as to the gasket limitation if, in response to the first office action, Felix had cancelled both claim 1 and claim 7, and had rewritten claim 8 in independent form, instead of attempting to secure the broader coverage of rewritten claim 7 as an intermediate step.")[1]. And, even if it did, the claims here were not amended to address any rejection directed to the content of the message; rather, the claims were amended to in response to the Examiner's request to provide "more detailing such as type of memory, type of interleaving to distinguish from the prior art or memory art." A164-167. In sum, the prosecution history does not support Defendants' assertion that the claims "were amended to reflect" the content of the message, much less any specific content, as "the single alleged point of novelty" because nothing in the prosecution history preceding the amendment supports this contention.

Defendants, going beyond the call of the Court's narrow request for comment on the 12-17-2009 amendment, cite to the Examiner's Statement of Reasons for Allowance (A180) for its contention that "[t]he prosecution history of the Family 3 patents shows that the original claims of the first patent to issue were amended to reflect the single alleged point of novelty identified by the Examiner: the content of the message." But Defendants' assertion that the Examiner's Statement should be imputed to the Applicant is incorrect. The "examiner's unilateral statement does not give rise to a clear disavowal of claim scope by the applicant." *Alfred E. Mann Found. for Sci. Research v. Cochlear Corp.*, 841 F.3d 1334, 1341 (Fed. Cir. 2016). Further, "an applicant's silence regarding statements made by the examiner during prosecution, without more, cannot amount to a 'clear and unmistakable disavowal' of claim scope." *Cot'n Wash, Inc. v. Henkel Corp.*, No. CV 12-650-SLR, 2014 WL 4246425, at *3 (D. Del. Aug. 26, 2014) (citing *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1345 (Fed. Cir. 2005)). Thus, the prosecution history does not support Defendants' argument that the content of the message was ever asserted by the Applicant to be the point of novelty over the prior art. *See Cot'n Wash, Inc.*, 2014 WL 4246425, at *3.

The Court "request[ed] a joint letter from the parties as to whether the 12-17-2009 amendment can or cannot be used to demonstrate that the patentee amended the claims." Defendants instead use this letter to make new arguments, conflating statements made in the office action with the Examiner's Reasons for Allowance. Importantly, after the filing of the 12-17-2009 amendment the Fadavi-Ardekani reference was not raised by the

---

[1] Defendants recognize that the Federal Circuit has left open the question of the estoppel effects of cancelling claims and writing new claims. However, Defendants ask this Court to answer that question.

The Honorable Richard G. Andrews
December 14, 2017
Page 3

Examiner.  The Court should reject Defendants' attempt to inject the Examiner's reasons for allowance into the claim construction.

**Defendants' Position:**

The prosecution history of the Family 3 patents shows that the original claims of U.S. Patent No. 7,831,890, the first patent to issue from Family 3 were amended to reflect the single alleged point of novelty identified by the Examiner: the content of the message. *See* D.I. 354-1, A180.  After an interview on December 8, 2009, the Examiner issued a final rejection of all pending claims (1-45) of the application that would issue as U.S. Patent No. 7,831,890 under 35 U.S.C. 102(e) based on anticipation by prior art reference Fadavi-Ardekani on December 9, 2009.  *See id.*, A138-145, A146-163, A164-167, A650. On December 17, 2009, the Applicant canceled all pending claims (1-45), and added new claims 46-49.  The December 17, 2009 amendment is in the joint appendix at A647-650 and shows that the patentee amended the claims following a rejection.

In the December 17, 2009 amendment, new claim 46 recites a method of allocating shared memory in a transceiver comprising, inter alia, "transmitting or receiving, by the transceiver, a message during initialization indicating a maximum number of bytes of memory that can be allocated to an interleaver," and allocating shared memory such that "the allocated memory for the interleaver does not exceed the maximum number of bytes indicated in the message," among other amendments.  *Id.*, A648.  By contrast, the original claims referred to "information that is used to determine a maximum amount of shared memory that can be allocated," without specifically reciting a message or its contents.  *See id.*, A140. The Applicant submitted two further amendments shortly thereafter:  one on December 30, 2009, which added new claims 50-53 (*see* Ex. A at 3, attached hereto), and one on March 8, 2010 to make typographical changes (*see* D.I. 354-1, A168-171).  Claims 46-53 ultimately issued as claims 1 through 8 of the '890 patent.  *See* A10-11, col. 10:38-12:17.  On September 7, 2010, the Examiner issued a Notice of Allowability with an Examiner's Amendment.  *Id.*, A173-181.  The Examiner's amendments included changing Claim 46 and 50's recitations of "a message during initialization indicating a maximum number of bytes of memory that can be allocated…" to "a message during initialization specifying a maximum number of bytes of memory that are available to be allocated…". Compare *id.*, A160-170 and A177-178.  The Examiner's Amendment stated that the applicant authorized the amendments in a telephone interview.  *Id.* at A177.  As these portions of the file history show, the December 17, 2009 and the December 30, 2009 amendments demonstrate that the applicant amended the claims to overcome a rejection over the Fadavi-Ardekani reference.

TQ Delta's argument that the claims were not amended to address any rejection directed to the content of the message misses the point.  In the rejection, the Examiner found that prior art reference Fadavi-Ardekani "teaches transmitting to another transceiver information that is used to determine a maximum amount of shared memory that can be allocated . . ." A151.  Later, after the applicant amended the claims, the only "distinct

The Honorable Richard G. Andrews
December 14, 2017
Page 4

features" identified in the Examiner's discussion of allowable subject matter were "specifying a maximum number of bytes available to be allocated to [an interleaver/deinterleaver] in a transmitted or received message, determining the amount of memory required by the [interleaver/deinterleaver], and then allocating the bytes of a shared memory to the [interleaver/deinterleaver] wherein the bytes allocated do not exceed the maximum number of available bytes specified in the message." D.I. 353 at 21 (quoting A180). The only purportedly novel aspect of the claimed invention was the content of the message, and the intrinsic evidence shows that the applicant amended the claims to add the content of the message. *Id.* at 1, 3, 19-21, 69-73, 76-78, 83-87.

TQ Delta's legal arguments regarding estoppel and disclaimer, and later, the Examiner's Statement of Reasons for Allowance, stray far beyond the scope of the Court's Order, which simply seeks the parties' positions "as to whether the 12-17-2009 amendment can or cannot be used to demonstrate that the patentee amended the claims." D.I. 419. In any event, Defendants address them here. The patentee was not "silent" in response to the Examiner's statements during prosecution. The patentee made a narrowing amendment in response to the Examiner's rejection, and then authorized an Examiner's Amendment. *See Forest Labs. Holdings Ltd. v. Mylan Inc.*, 206 F.Supp.3d 957, 971(D. Del. 2016) ("[W]hen the patentee unequivocally and unambiguously disavows a certain meaning to obtain a patent, the doctrine of prosecution history disclaimer narrows the meaning of the claim consistent with the scope of the claim surrendered . . . ***Such statements can take the form of either amendment or argument.***") (emphasis added) (*quoting Biogen Idec, Inc. v. GlaxoSmithKline LLC*, 713 F.3d 1090, 1095 (Fed. Cir. 2013)). Prosecution history disclaimer "does not require the applicant to parrot back language used by the examiner when clearly and deliberately responding to a particular grounds for rejection." *Biogen*, 713 F.3d at 1096 (finding disclaimer where examiner found that specification only enabled one type of antibody, and in response applicant limited their claims to that type of antibody).

TQ Delta's cases are inapposite. *Felix* addresses the effect of prosecution history estoppel on the doctrine of equivalents. TQ Delta has not disclosed any infringement theories under the doctrine of equivalents in four years of litigation. Moreover, *Felix* only "leaves open the question" of whether a "presumption of surrender" arises when an applicant rewrites a rejected claim to include the limitations of multiple dependent claims – a question that has no relevance here. *Felix v. Am. Honda Motor Co.*, 562 F.3d 1167, 1182 n.4 (Fed. Cir. 2009). And TQ Delta points to no authority indicating that disclaimer does not apply to claims that are replaced rather than amended line-by-line. *Salazar* and *Cot'n Wash* only concern applicant actions after receiving a Notice of Allowance. *See Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005) (no disclaimer where applicant was silent after Examiner remarks in Notice of Allowance); *Cot'n Wash, Inc. v. Henkel Corp.*, 2014 WL 4246425, at *4 (D. Del. 2014) (declining to allow plaintiffs to use examiner's interpretation in Notice of Allowance, where applicants had argued against the examiner's interpretation after receiving the notice). In *Alfred E. Mann*, the Federal Circuit relied on the applicants' own characterizations of its invention submitted with an

The Honorable Richard G. Andrews
December 14, 2017
Page 5

amendment in finding no disavowal. *Alfred E. Mann Foundation for Scientific Research, LLC v. Cochlear Corp.*, *NKA*, 841 F.3d 1334, 1341 (Fed. Cir. 2016).

   The Court should adopt Defendants' proposed constructions, for the reasons set forth above and in the Joint Claim Construction Brief.


Respectfully yours,

*/s/ Jody C. Barillare*

Jody C. Barillare (#5107)

JCB

cc:  All Counsel of Record via CM/ECF

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

| | |
|---|---|
| In Re the Application of:  Tzannes et al. | ) Group Art Unit:  2447 |
| | ) |
| Application No.:  11/246,163 | ) Examiner:  Pfizenmayer, M. |
| | ) |
| Filed:  October 11, 2005 | ) Confirmation No.:  5478 |
| | ) |
| Atty. File No.:  5550-54 | ) |
| | ) |

For:  RESOURCE SHARING IN A TELECOMMUNICATIONS ENVIRONMENT

## AMENDMENT AND RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA  22313-1450

Sir:

Applicants submit this Amendment and Response supplemental to the Amendment and Response and RCE filed December 17, 2009.  Please credit any overpayment or charge any underpayment to Deposit Account No. 19-1970.

Please amend the above-identified patent application as follows:

**Amendments to the Claims** are shown in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 4 of this paper.

1                                                    Attorney Docket No.:  5550-54

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. – 45. (Cancelled)

46.    (Currently Amended) A method of allocating shared memory in a transceiver comprising:

transmitting or receiving, by the transceiver, a message during initialization indicating a maximum number of bytes of memory that can be allocated to an interleaver;

allocating, in the transceiver, a first number of bytes of a shared memory to ~~an~~the interleaver to interleave a first plurality of Reed Solomon (RS) coded data bytes for transmission at a first data rate; and

allocating, in the transceiver, a second number of bytes of the shared memory to a deinterleaver to deinterleave a second plurality RS coded data bytes received at a second data rate,

wherein the allocated memory for the interleaver does not exceed the maximum number of bytes indicated in the message, and

wherein the shared memory is used to simultaneously interleave the first plurality of RS coded data bytes and deinterleave the second plurality of RS coded data bytes.


47.    (Previously Presented) The method of claim 46, wherein the allocating is based on an impulse noise protection requirement.

Attorney Docket No.: 5550-54

48.     (Previously Presented) The method of claim 46, wherein the allocating is based on a latency requirement.

49.     (Previously Presented) The method of claim 46, wherein the allocating is based on a bit error rate requirement.

50.     (New) A method of allocating shared memory in a transceiver comprising:

transmitting or receiving, by the transceiver, a message during initialization indicating a maximum number of bytes of memory that can be allocated to a deinterleaver;

allocating, in the transceiver, a first number of bytes of a shared memory to an interleaver to interleave a first plurality of Reed Solomon (RS) coded data bytes for transmission at a first data rate; and

allocating, in the transceiver, a second number of bytes of the shared memory to the deinterleaver to deinterleave a second plurality RS coded data bytes received at a second data rate,

wherein the allocated memory for the deinterleaver does not exceed the maximum number of bytes indicated in the message, and

wherein the shared memory is used to simultaneously interleave the first plurality of RS coded data bytes and deinterleave the second plurality of RS coded data bytes.

51.     (New) The method of claim 50, wherein the allocating is based on an impulse noise protection requirement.

Attorney Docket No.:  5550-54

52.     (New) The method of claim 50, wherein the allocating is based on a latency requirement.


53.     (New) The method of claim 50, wherein the allocating is based on a bit error rate requirement.

Attorney Docket No.:  5550-54

## REMARKS

Applicants respectfully request reconsideration of this application as amended.

By this amendment, claim 46 has been amended for antecedent basis, and new claims 50-53 are presented that more particularly claim a deinterleaver embodiment. The combination of features in all the above claims is neither taught nor suggested by the cited reference.
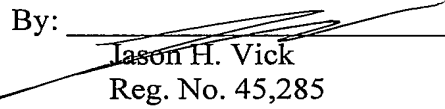
A Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge to deposit account number 19-1970 any fees under 37 CFR § 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been separately requested, such extension is hereby petitioned.

Respectfully submitted,

SHERIDAN ROSS P.C.

Date: _30 Dec '05_

By: _____
      Jason H. Vick
      Reg. No. 45,285
      1560 Broadway, Suite 1200
      Denver, Colorado 80202
      Telephone: 303-863-9700

5                                    Attorney Docket No.: 5550-54

# Electronic Acknowledgement Receipt

| | |
|---|---|
| **EFS ID:** | 6725317 |
| **Application Number:** | 11246163 |
| **International Application Number:** | |
| **Confirmation Number:** | 5478 |
| **Title of Invention:** | Resource sharing in a telecommunications environment |
| **First Named Inventor/Applicant Name:** | Marcos C. Tzannes |
| **Customer Number:** | 62574 |
| **Filer:** | Jason Vick |
| **Filer Authorized By:** | |
| **Attorney Docket Number:** | 5550-54 |
| **Receipt Date:** | 30-DEC-2009 |
| **Filing Date:** | 11-OCT-2005 |
| **Time Stamp:** | 10:37:56 |
| **Application Type:** | Utility under 35 USC 111(a) |

## Payment information:

| | |
|---|---|
| Submitted with Payment | no |

## File Listing:

| Document Number | Document Description | File Name | File Size(Bytes)/ Message Digest | Multi Part /.zip | Pages (if appl.) |
|---|---|---|---|---|---|
| 1 | | SupplementalAMD.pdf | 271859<br>fd69adefa822170cd8996dbb44eca1b17d3 9f368 | yes | 5 |

**Multipart Description/PDF files in .zip description**

| Document Description | Start | End |
|---|---|---|
| Amendment Submitted/Entered with Filing of CPA/RCE | 1 | 1 |
| Claims | 2 | 4 |
| Applicant Arguments/Remarks Made in an Amendment | 5 | 5 |

**Warnings:**

**Information:**

| | |
|---|---|
| Total Files Size (in bytes): | 271859 |

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable.  It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

| PATENT APPLICATION FEE DETERMINATION RECORD<br>Substitute for Form PTO-875 | Application or Docket Number<br>11/246,163 | Filing Date<br>10/11/2005 | ☐ To be Mailed |
|---|---|---|---|

### APPLICATION AS FILED – PART I

| FOR | (Column 1)<br>NUMBER FILED | (Column 2)<br>NUMBER EXTRA | SMALL ENTITY ☐<br>RATE ($) | FEE ($) | OR | OTHER THAN<br>SMALL ENTITY<br>RATE ($) | FEE ($) |
|---|---|---|---|---|---|---|---|
| ☐ BASIC FEE<br>(37 CFR 1.16(a), (b), or (c)) | N/A | N/A | N/A | | | N/A | |
| ☐ SEARCH FEE<br>(37 CFR 1.16(k), (i), or (m)) | N/A | N/A | N/A | | | N/A | |
| ☐ EXAMINATION FEE<br>(37 CFR 1.16(o), (p), or (q)) | N/A | N/A | N/A | | | N/A | |
| TOTAL CLAIMS<br>(37 CFR 1.16(i)) | minus 20 = | * | X $ = | | OR | X $ = | |
| INDEPENDENT CLAIMS<br>(37 CFR 1.16(h)) | minus 3 = | * | X $ = | | | X $ = | |
| ☐ APPLICATION SIZE FEE<br>(37 CFR 1.16(s)) | If the specification and drawings exceed 100 sheets of paper, the application size fee due is $250 ($125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s). | | | | | | |
| ☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j)) | | | | | | | |
| * If the difference in column 1 is less than zero, enter "0" in column 2. | | | TOTAL | | | TOTAL | |

### APPLICATION AS AMENDED – PART II

| AMENDMENT | 12/30/2009 | (Column 1)<br>CLAIMS REMAINING AFTER AMENDMENT | | (Column 2)<br>HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3)<br>PRESENT EXTRA | SMALL ENTITY<br>RATE ($) | ADDITIONAL FEE ($) | OR | OTHER THAN<br>SMALL ENTITY<br>RATE ($) | ADDITIONAL FEE ($) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total (37 CFR 1.16(i)) | * 8 | Minus | ** 45 | = 0 | X $ = | | OR | X $52= | 0 |
| | Independent (37 CFR 1.16(h)) | * 2 | Minus | ***5 | = 0 | X $ = | | OR | X $220= | 0 |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | OR | | |
| | | | | | | TOTAL ADD'L FEE | | OR | TOTAL ADD'L FEE | 0 |

| AMENDMENT | | (Column 1)<br>CLAIMS REMAINING AFTER AMENDMENT | | (Column 2)<br>HIGHEST NUMBER PREVIOUSLY PAID FOR | (Column 3)<br>PRESENT EXTRA | RATE ($) | ADDITIONAL FEE ($) | OR | RATE ($) | ADDITIONAL FEE ($) |
|---|---|---|---|---|---|---|---|---|---|---|
| | Total (37 CFR 1.16(i)) | * | Minus | ** | = | X $ = | | OR | X $ = | |
| | Independent (37 CFR 1.16(h)) | * | Minus | *** | = | X $ = | | OR | X $ = | |
| | ☐ Application Size Fee (37 CFR 1.16(s)) | | | | | | | | | |
| | ☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j)) | | | | | | | OR | | |
| | | | | | | TOTAL ADD'L FEE | | OR | TOTAL ADD'L FEE | |

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

Legal Instrument Examiner:
/SHARAIN MORELAND/